Amendments to the specification:

Please amend the paragraphs beginning on page 10, line 1 as follows:

-- In one embodiment, the ~~The~~ protease cleaves the same targets as activated protein C. This cleavage can attenuate the blood coagulation cascade. Sepsis is thereby treated by supplementing the action of protein C.

In one embodiment, the ~~The~~The protease cleaves cell surface molecules that are responsible for tumorigenicity, preventing the spread of cancer. For example, cleavage of cell surface molecules can inactivate their ability to transmit extracellular signals, especially cell proliferation signals. Without these signals, cancer cells often cannot proliferate. The protease of the invention could therefore, be used to treat cancer. In another aspect of this embodiment, the protease could cleave any target protein that is responsible for the spread of cancer. Cleaving a target protein involved in cell cycle progression could inactivate the ability of the protein to allow the cell cycle to go forward. Without the progression of the cell cycle, cancer cells could not proliferate. Therefore, the proteases of the invention could be used to treat cancer.--

Please amend the paragraph beginning on page 22, line 9 as follows:

-- For the P3 and P4 subsites, mutations at Tyr174, Arg192 and Asn218 did not significantly affect the specificity (*See* Table 4, below). Y174A increases the activity towards Leu at P4, but the rest of the amino acids continue to be poorly selected. R192A and N218A both broaden the specificity at P3. Instead of a strong preference for glutamic acid, Ala, Ser, Glu and Gln are similarly preferred in the mutant. The overall activity (kcat/Km) of the mutant is less than 10% below the wild type activity toward an ideal wild-type substrate, N-acetyl-Ile-Glu-Pro-Asp-AMC (7-amino-4-methylcoumarin) (Ac-IEPD-AMC) (SEQ ID NO: 6). --

Please amend the Table 7 on page 51 as follows:

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TNF-α	AEAK (SEQ ID NO: 7)	loop	Rheumatoid arthritis, Crohn's disease, Inflammatory bowel disease, Psoriasis
TNF-R1	ENVK (SEQ ID NO: 8)	stalk	
	GTED(SEQ ID NO: 9)	stalk	
TNF-R2	SPTR (SEQ ID NO: 10)	stalk	
	VSTR (SEQ ID NO: 11)	stalk	
	STSF (SEQ ID NO: 12)	stalk	
HER-2	KFPD (SEQ ID NO: 13)	stalk	Breast cancer
	AEQR (SEQ ID NO: 14)	stalk	
EGFR	KYAD (SEQ ID NO: 15)	stalk	Lung, breast, bladder, prostate, colorectal, kidney, head & neck cancer
	NGPK (SEQ ID NO: 16)	stalk	
VEGFR-1	SSAY(SEQ ID NO: 17)	stalk	
	GTSD(SEQ ID NO: 18)	stalk	
VEGFR-2	AQEK(SEQ ID NO: 19)	stalk	
	RIDY (SEQ ID NO: 20)	loop	

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Please replace the pending sequence listing with the enclosed replacement sequence listing (pages 1-6).